

Renewable Portfolio Standard (RPS)... What it is and How it works...

With Me Today... ---

- Don Johns, Executive Director, MIPPA
 - James Clift, Policy Director, Michigan Environmental Council
 - Trevor Lauer, Vice President Marketing, DTE
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Michigan Sustainable Energy Coalition

A coalition of business and environmental groups formed to work with the Michigan Legislature and the Michigan Public Service Commission (MPSC) to create and implement a Renewable Portfolio Standard (RPS) for Michigan

Renewable Energy

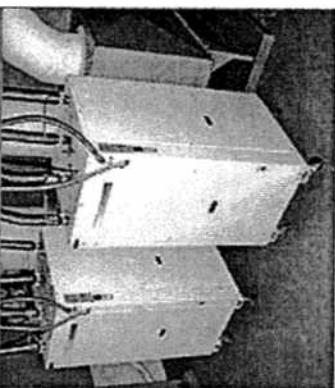
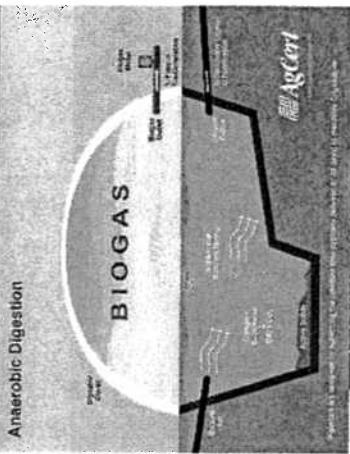
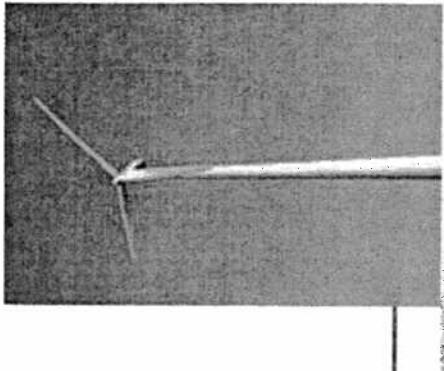
Defined as:

Natural energy sources that are inexhaustible,
These include:

- Wind
- Solar
- Geothermal
- Biomass
- Hydropower

Renewable Energy Sources

- Wind – Converts wind to electricity or mechanical power.
- Solar – Photovoltaic or thermal heating.
- Biomass – Wood waste, landfill gas, anaerobic digestion, etc.
- Geothermal – Uses earth heat as source of heating, heat pumps in Michigan.
- Hydro – Existing Michigan facilities.



What is an RPS?

An RPS is state policy, established by the Legislature, that requires certain percentages of power sold in the state to be generated from systems using sustainable renewable sources of fuel. These percentages must be reached within a certain timeline.

A Renewable Portfolio Standard (RPS) should have nine core principles:

- Must be required or mandated to establish a standard
- Realistic and attainable goals
- Must apply to all suppliers of retail electricity
- Define “renewable fuels” without giving favor to any particular RE technology

Core Principles cont'd...

- Advance renewable energy projects located in Michigan—not out of state
 - Create a level and highly competitive market
 - Must have penalties for non-compliance
 - Not require public funding
 - No Negative impact on existing renewable energy generators
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A RPS Promotes and Encourages Renewable Energy

A Renewable Portfolio Standard (RPS) or Renewable Electricity Standard (RES), as it is sometime referred to, is designed to promote the use of renewable power with little or no tax dollars.

Renewable Portfolio Standard (RPS)

- A market based policy for increasing the amount of renewable energy serving a state or nation.
- It requires all retail sellers of power to demonstrate that a certain percentage of the power they sell comes from renewable sources.

Government Role in the RPS

- Limited to:

- Verifying retail sellers have enough renewables to meet the required percentages
- Impose a significant penalty for non-compliance for sellers who fall short of the mandated percentages.

Don Johns, Executive Director, MIPPA
President, EnStar Energy

Background

■ 23 years as member of MPSC Staff

- Responsible for Renewable energy and Cogeneration. Added over 1600 MW under PURPA
- Chair of 21st Century Energy Plan Renewable and Alternate Energy Work Groups' Policy Team
- Renewable Energy Consultant for past 11 years

What does an RPS do from a Generator's Perspective?

- An RPS gives Retail Electric Service Providers a strong incentive to supply renewable energy.
 - If not, the Provider pays a stiff penalty.
 - Generally an RPS penalty puts a cap on the market price. No incentive for Provider to pay more.
 - An RPS causes Providers to enter into Power Purchase Agreements (PPAs).
 - Under an RPS PPAs are generally finannciable.
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From a generators perspective... Why is an RPS Needed in Michigan?

- Michigan has a strong need for new generation.
 - There is general agreement renewables:
 1. Offer significant benefits, (jobs, clean environment, price stability, etc.)
 2. Can be brought on line sooner than conventional sources, and
 3. Will not significantly raise utility rates.
 - Despite these facts, there is little or no market for renewable energy, at sustainable prices, in Michigan.
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Why is there No Market?

- Michigan's current wholesale electric generation market puts little value on power coming from a renewable source.
- No Party has an incentive to buy renewable generation.
 - Utility Earnings are tied to Investment in own plants.
 - Alternate Energy Suppliers (AES) earnings are tied to markup of wholesale power.
- Risk for investors is high as regulatory rules and wholesale market prices constantly change.
- Very few long term requests for proposals to supply electricity to bid on

Renewables Find it Difficult to Provide New Generation in this Market.

- Renewable projects generally have higher initial costs but life cycle costs are about the same as conventional generation.
 - Renewable projects generally need long term non-recourse project financing.
 - There is currently too much risk in volatile wholesale markets in investment capital.
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What do Renewable Energy Developers Want?

- An opportunity to sell their product under rates, terms and conditions with manageable risk.
 - Financiable projects need long term contracts or a stable market.
 - With manageable risk, Renewables will have access to capital and developers will invest it in Michigan.
 - Existing renewable generators do not want to be put at a disadvantage to new generators.
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What will Michigan Gain if it Encourages Renewable Generators to Build in Michigan with a RPS?

- Reliable generation with stable long term pricing.
- Customer preferred environmentally friendly power.
- Decreased exposure to global warming risks (carbon tax).
- More jobs.
- More dollars stay in State.

**James Clift, Policy Director, Michigan
Environmental Council**

Goals of RPS

- Reduce public health and environmental costs
- Increase reliability
- Promote economic development in clean energy
- Lower risk of escalating fuel costs

Why RPS?

- Addressed defect in current market that fails to distinguish between clean energy and dirtier forms of generation.
- Different types of energy result in different levels of health care and environmental costs being borne by general public.
- RPS levels the playing field.

Examples of related health care and environmental costs

- Asthma attacks
 - Premature deaths
 - Hospital visits and lost work days
 - Restrictions on fish consumption due to mercury
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Lower risks

- Fuel costs continue to increase
- Strong probability of carbon surcharges in the future
- Less susceptible to increasing pollution control costs
- Reduces pressure on increasing health care costs

Trevor Lauer, Vice President Marketing,
DTE

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Questions?

A presentation of:
Michigan Sustainable Energy Coalition (MSEC)
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